

What is claimed:

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1. A system, comprising:
a user interface device; and
a tool selected from the group consisting of a well tool and a tool containing one or more explosive elements,
the user interface device adapted to communicate wirelessly with the tool.
 2. The system of claim 1, wherein the user interface device comprises a display to display a graphical user interface.
 3. The system of claim 2, wherein the graphical user interface comprises one or more graphical elements selectable to control the tool.
 4. The system of claim 1, wherein the user interface device comprises a personal digital assistant.
 5. The system of claim 1, wherein the user interface device comprises an infrared transceiver adapted to communicate infrared signals.
 6. The system of claim 1, wherein the user interface device is adapted to send a command to the tool to perform a test of the tool.
 7. The system of claim 6, wherein the user interface device comprises a display to show a result of the test.
 8. The system of claim 6, wherein the tool comprises plural control units, the user interface device adapted to send commands to the tool to successively test the plural control units.

A3
1 9. The system of claim 8, wherein the tool comprises a string of elements and a test
2 system coupled to the string of elements,
3 the test system having a port adapted to communicate wirelessly with the user
4 interface device.

1 10. An apparatus for testing a tool, comprising:
2 a user interface device; and
3 a test system adapted to be coupled to the tool,
4 the user interface device adapted to communicate wirelessly with the test system,
5 the user interface device adapted to send commands to the test system for testing
6 the tool.

1 11. The apparatus of claim 10, wherein the user interface device comprises a
2 graphical user interface.

1 12. The apparatus of claim 11, wherein the graphical user interface comprises one or
2 more control elements selectable to activate testing of the tool.

1 13. The apparatus of claim 12, wherein the tool comprises plural control units, the
2 user interface device adapted to send commands to sequentially test the plural control units.

1 14. The apparatus of claim 13, wherein the graphical user interface is adapted to
2 display acquired information pertaining to each of the control units.

1 15. The apparatus of claim 12, wherein the graphical user interface is adapted to
2 display information pertaining to control units for explosive devices.

1 16. The apparatus of claim 10, wherein the test system comprises a microcontroller
2 responsive to commands from the user interface device.

1 17. The apparatus of claim 16, wherein the microcontroller is adapted to send signals
2 to the tool in response to the commands from the user interface device.

1 18. The apparatus of claim 17, wherein the test system further comprises a current
2 limiting device adapted to limit an amount of current delivered to the tool to allow safe use with
3 explosive devices in the tool.

1 19. The apparatus of claim 18, wherein the test system further comprises a second,
2 redundant current limiting device.

1 20. The apparatus of claim 18, wherein the test system further comprises a switch to
2 couple output current from the current limiting device to the tool, the switch adapted to be
3 operated by the microcontroller.

1 21. The apparatus of claim 20, wherein the microcontroller checks for a current level
2 to be below a predefined limit before closing the switch.

1 22. The apparatus of claim 18, wherein the test system further comprises a fuse
2 placed in a current path to the tool.

1 23. The apparatus of claim 17, wherein the test system further comprises a current
2 detector to detect current from the tool, the microcontroller adapted to use an output of the
3 current detector to determine for presence of components in the tool.

1 24. The apparatus of claim 23, wherein the microcontroller is adapted to further use
2 the output of the current detector to determine if a component of the tool has failed.

1 25. The apparatus of claim 17, wherein the test system further comprises a current
2 detector to detect current from the tool, the microcontroller adapted to use an output of the
3 current detector to determine if a component in the tool has failed.

1 26. The apparatus of claim 10, wherein the user interface device is adapted to check
2 that communications with components of the tool is functional.

1 27. The apparatus of claim 26, wherein the user interface device is adapted to verify
2 addresses of the components in the tool.

Sub A3] 1 28. A method comprising:
2 providing a user interface device; and
3 wirelessly communicating with a tool using the user interface device,
4 the tool selected from the group consisting of a well tool and a tool containing one
5 or more explosive elements.

6 29. The method of claim 28, further comprising accepting user selection of an item in
7 a graphical user interface of the user interface device to perform a task associated with the tool.

8 30. The method of claim 29, further comprising displaying a status of the tool in the
9 graphical user interface.

10 31. The method of claim 30, wherein displaying the status comprises displaying status
11 of plural devices in the tool.

12 32. The method of claim 30, wherein displaying the status comprises displaying a
13 status of control units for explosive devices.

14 33. The method of claim 28, further comprising sending a command to the tool to test
15 the tool.

16 34. The method of claim 28, further comprising receiving identifiers of components
17 for use in the tool.

1 35. The method of claim 34, wherein receiving the identifiers comprises scanning bar
2 codes of the components.

1 36. The method of claim 35, wherein scanning the bar codes comprises using a
2 scanner module coupled to the user interface device.

1 37. The method of claim 35, wherein the components comprises control units, the
2 method further comprising assigning the bar codes as addresses of the control units.

1 38. The method of claim 34, wherein receiving the identifiers comprises receiving the
2 identifiers using a radio frequency transceiver.

1 39. The method of claim 28, further comprising encapsulating the user interface
2 device in a cover adapted to reduce discharge of an electrical impulse.

1 40. The method of claim 28, further comprising providing a security feature in the
2 user interface device to prevent unauthorized access of the user interface device, the security
3 feature comprising one of a field to accept a password and a component to interact with a smart
4 card.

1 41. The method of claim 28, further comprising storing information relating to a
2 distance between a casing collar locator and one or more shots of the tool.

1 42. The method of claim 28, wherein the tool comprises a core sampling tool, the
2 method further comprising storing information collected by the core sampling tool in the user
3 ~~interface device.~~

1 43. A method of testing a tool, comprising:
2 providing a user interface device having graphical user interface items;
3 receiving user selection of one or more of the graphical user interface items; and

4 sending commands to the tool to test the tool in response to user selection of the
5 one or more of the graphical user interface items.

1 44. The method of claim 43, wherein sending the commands comprises sending
2 commands from a test system to the tool.

1 45. The method of claim 44, further comprising communicating wirelessly between
2 the user interface device and the test system.

1 46. The method of claim 43, wherein providing the user interface device comprises
2 providing a personal digital assistant.

1 47. A method of inventory control, comprising:
2 receiving, in a user interface device, identifiers of inventory components of a tool,
3 the tool selected from the group consisting of a well tool and a tool containing one or more
4 explosive components;
5 storing information pertaining to the inventory components; and
6 updating the information based on usage.

1 48. The method of claim 47, wherein receiving the identifiers comprises using a
2 scanner module to receive the identifiers.

1 49. The method of claim 47, wherein receiving the identifiers comprises receiving
2 identifiers of components of an explosive tool.

1 50. The method of claim 49, wherein receiving the identifiers comprises receiving
2 identifiers of control units and switches.

1 51. An article of comprising at least one storage medium containing instructions that
2 when executed cause a system to:
3 receive user selection for testing a tool;
4 send one or more commands over a wireless link to a device in response to the
5 user selection for testing the tool; and
6 receive test results over the wireless link.

1 52. The article of claim 51, wherein the instructions when executed cause the system
2 to display the test results.

1 53. The article of claim 51, wherein the instructions when executed cause the system
2 to present a graphical user interface items selectable by a user.

1 54. The article of claim 53, wherein the instructions when executed cause the system
2 to display the test results in the graphical user interface.

1 55. The article of claim 54, wherein the instructions when executed cause the system
2 to store the test results, the test results indicating pass/fail status of control units and switches in
3 the tool.

1 56. A test system for testing a tool, comprising:
2 a wireless interface adapted to receive wireless signals;
3 a controller responsive to the wireless signals to send coded signals to the tool for
4 testing the tool; and
5 a detector adapted to detect a status of one or more components of the tool.

1 57. The test system of claim 56, wherein the detector comprises a current detector
2 adapted to detect a level of electrical current.

1 58. The test system of claim 56, further comprising one or more current limiting
2 devices adapted to limit an amount of current provided to the tool.

1 59. The test system of claim 56, further comprising one or more current limiting
2 devices adapted to limit an amount of current provided to the tool to allow safe use with
3 explosive devices in the tool.

1 60. The test system of claim 56, further comprising a fuse in a current path to the tool.

1 61. The test system of claim 56, wherein the detector is adapted to detect for at least
2 one of the following failures: mis-wiring of a components in the tool; a short in the tool; and the
3 presence of a detonator in the tool.

Added A37